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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/626,729

07/25/2003

Vipul Patel

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11/17/2004

DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP

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EXAMINER

NGUYEN, DANG T

ART UNIT

PAPER NUMBER

2824

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/626,729

Applicant(s)

PATEL, VIPUL

Examiner

Dang T Nguyen

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 18-23, 28-30 and 35-37 is/are pending in the application.
- 4a) Of the above claim(s) 8-17, 24-27, 31-34, and 38-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 18-23, 28-30 and 35-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-41 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Search history.

### **DETAILED ACTION**

1. This action is responsive to the following communications: the Application filed on July 15, 2003.

2. In response to Examiner's Requirement of Election /Restriction dated 09/29/2004, Applicant elected Group I (claims 1-7, 18-23, 28-30, and 35-37) for continued examination, with traverse. Examiner respectful traverses from the following:

The applicant argument on the Response to Restriction Requirement is not directed to the reasons set forth by the examiner in Restriction Requirement. To be more specific, the applicant does not provide any evident that shows "the search required for each group (Group 1 – 4) would be the same". Therefore, the restriction for examiner purposes as indicated is proper.

3. Claims 1-41 are restricted in this application. Claims 1-7, 18-23, 28-30, and 35-37 have been elected. Claims 8-17, 24-27, 31-34, and 38-41 have been withdrawn. Claims 1, 5, 18, 21, 28, and 35 are independent claims.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-4, 5-7, 18-20, 21-23, 28-30, and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Gillingham et al., U.S. Pub. No. US – filed Oct. 12, 1999.**

**Regarding independent claims 1 and 5,** Fig. 2 Gillingham discloses a content addressable memory (CAM) cell comprising: a matchline [ML]; a wordline [WL]; and a shieldline [TL] positioned between said matchline [ML] and said wordline [WL] for receiving electrical noise from said matchline (Fig. 5 paragraph [0040] lines 10-12) (*ML and TL are coupled together, so TL receives electrical noise from the matchline*).

**Regarding dependent claim 2,** Gillingham discloses wherein said shieldline is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

**Regarding dependent claim 3,** Gillingham does not explicitly disclose the shieldline is made of metal. However, conductive or metal of the shieldline is inherent to the tail line [TL] of Gillingham (Figs. 2 and 5) that Tail line [TL] is conducting the currents of Cell 1 and Cell 2 (page 4, paragraph [0039] lines 16-17). Therefore, the tail line [TL] must be formed by metal or conductive material.

**Regarding dependent claim 6,** Gillingham does not explicitly disclose the shielding means is a conductive material. However, conductive or metal of the shieldline is inherent to the tail line [TL] of Gillingham (Figs. 2 and 5) that tail line [TL] is conducting the currents of Cell 1 and Cell 2 (page 4, paragraph [0039] lines 16-17). Therefore the tail line [TL] means is a conductive material.

**Regarding dependent claim 7,** Gillingham discloses wherein said shielding means is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

**Regarding independent claims 18 and 21**, Gillingham discloses an integrated circuit, comprising: a content addressable memory (CAM) cell (Fig. 5), comprising: a matchline (Fig. 2 [ML]); a wordline (Fig. 2 [WL]); and a shieldline (Fig. 2 [TL]) positioned between said matchline and said wordline for receiving electrical noise from said matchline (Fig. 2 shows a schematic of a DRAM based CAM cell [*while a DRAM cell is more sensitive to noise*]. Therefore, it is desirable to reduce the effect of spurious noise in the circuitry of the DRAM CAM array] and see Fig. 5 paragraph [0040] lines 10-12) (ML and TL are coupled together, so TL receives electrical noise from the matchline.).

**Regarding dependent claim 19**, Gillingham discloses wherein said shieldline is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

**Regarding dependent claim 22**, Gillingham does not explicitly disclose the shielding means is a conductive material. However, conductive or metal of the shieldline is inherent to the tail line [TL] of Gillingham (Figs. 2 and 5) that tail line [TL] is conducting the currents of Cell 1 and Cell 2 (page 4, paragraph [0039] lines 16-17). Therefore the tail line [TL] means is a conductive material.

**Regarding dependent claim 23**, Gillingham discloses wherein said shielding means is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

**Regarding independent claim 28**, Gillingham discloses a router, comprising: a content addressable memory (CAM) cell (Fig. 5), comprising: a wordline (Fig. 2 [WL]); a matchline (Fig. 2 [ML]); and shielding (Fig. 2 [TL]) means for shielding said wordline from noise from said matchline (*Fig. 2 for disclosing the tail line [TL] is typically connect*

*to ground and shield between the wordline and the matchline to reduces the transmission of noise from the matchline to the wordline).*

**Regarding dependent claim 29**, Gillingham does not explicitly disclose the shielding means is a conductive material. However, conductive or metal of the shieldline is inherent to the tail line [TL] of Gillingham (Figs. 2 and 5) that tail line [TL] is conducting the currents of Cell 1 and Cell 2 (page 4, paragraph [0039] lines 16-17). Therefore the tail line [TL] means is a conductive material.

**Regarding dependent claim 30**, Gillingham discloses wherein said shielding means is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

**Regarding independent claim 35**, Gillingham discloses a processor system, comprising: a processor (Page 1, paragraph [0002]); and a content addressable memory (CAM) cell (Fig. 5), comprising: a wordline (Fig. 2 [WL]); a matchline (Fig. 2 [ML]); and shielding (Fig. 2 [TL]) means for shielding said wordline from noise from said matchline (*Fig. 2 for disclosing the tail line [TL] is typically connect to ground and shield between the wordline and the matchline to reduces the transmission of noise from the matchline to the wordline).*

**Regarding dependent claim 36**, Gillingham does not explicitly disclose the shielding means is a conductive material. However, conductive or metal of the shieldline is inherent to the tail line [TL] of Gillingham (Figs. 2 and 5) that tail line [TL] is conducting the currents of Cell 1 and Cell 2 (page 4, paragraph [0039] lines 16-17). Therefore, the tail line [TL] means is a conductive material.

**Regarding dependent claim 37**, Gillingham discloses wherein said shielding means is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillingham et al., U.S. Pub. No. US 2002/0015348 A1 – Pub. Date (02/7/02).**

**Regarding dependent claims 4 and 20**, Gillingham as applied to claims 1 and 18 above disclosed every aspect of applicant's claimed invention except for the shieldline is made of copper. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the shieldline is formed by copper, since it has been held to be within the general skill of a worker in the art to select a known material such as gold, copper, etc... on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

***Prior art***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lines et al.      Patent No.: US 6,320,777 B1      Date of Patent: Nov. 20, 2001

Jin et al.	Patent No.: US 6,480,406 B1	Date of Patent: Nov. 12, 2002
Vlasenko et al.	Patent No.: US 6,717,876 B2	Date of Parent: Apr. 6, 2004

***Contact Information***


7. Any inquiry concerning this communication from the examiner should be directed to Dang Nguyen, who can be reached by telephone at (703) 305-1673. Normal contact times are M-F, 8:00 AM - 4:30 PM.

Upon an unsuccessful attempt to contact the examiner, the examiner's supervisor, Richard Elms, may be reached at (571) 272-1869.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is (703) 305-3900. The faxed phone number for organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the Status of an application may be obtained from the patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or [EBC@uspto.gov](mailto:EBC@uspto.gov).

Dang Nguyen 11/4/2004

  
**ANH PHUNG**  
**PRIMARY EXAMINER**



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